

Psychosocial Stress and Quality of Life in Head and Neck Cancer: A Clinical Perspective

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Dear Editor,

I read with great interest the recent review article by Dagli et al. titled “Bibliometric Analysis of Literature on Psychological Stress and Head and Neck Cancer (1977-2025),” published in the *Bangladesh Journal of Medical Science*.¹ The authors provide a valuable mapping of the literature surrounding psychosocial distress in head and neck cancer (HNC) patients over nearly four decades, rightly emphasizing the critical need for integrating mental health support into routine oncological care. While this comprehensive analysis sheds important light on global publication trends and key thematic areas, several clinical considerations and prospective intervention avenues warrant further emphasis. The clinical relevance of Dagli et al.’s bibliometric mapping is underscored by the immense global burden of HNC.

Worldwide, the annual incidence exceeds half a million cases, greater in men compared to women, and is increasingly seen in younger age groups.^{2,3} Comprising a heterogeneous group of tumours arising in the oral cavity, nasal cavity, pharynx, larynx, paranasal sinuses, salivary glands, thyroid gland, and soft tissues, HNC is predominantly composed of squamous cell carcinomas characterized by a strong propensity to recur locoregionally.⁴ It represents the seventh most common cancer globally, with frequently associated risk factors including smoking, alcohol consumption, human papillomavirus (HPV) infection (especially for oropharyngeal cancers), and Epstein-Barr virus (EBV) infection (especially for nasopharyngeal cancers in Asia).⁵

The main treatment modalities of HNC are surgery and radiation therapy, with or without chemotherapy, aiming for curative or palliative intent depending on tumours stage, site, available expertise, and patient factors. However, radiation therapy for local control comes with significant undesirable side effects, including mucositis, skin reactions, pain, risk of osteoradionecrosis, fibrosis, hearing loss, and xerostomia.⁶ Although advances in

therapeutic modalities have led to a slight improvement in the survival rate over the past decade from approximately 50% to 60%,⁷ this increased survival, alongside the rising incidence in younger patients demands that current management aim not only to increase chances of cure but also to enhance overall quality of life (QoL) and psychosocial well-being.

Patients with HNC frequently suffer functional impairments related to speech, breathing, and swallowing, as well as cosmetic disfigurement, either due to direct tumour infiltration or as a result of debilitating treatment sequelae.^{8,9} These functional losses lead to significantly heightened rates of psychological distress, negatively impacting psychological, QoL, and medical outcomes.¹⁰ HNC patients demonstrate significantly elevated levels of both anxiety and depressive symptoms that vary across the disease trajectory: high anxiety is commonly seen at diagnosis due to distractibility, information overload, and poor sleep,¹¹ whereas depressive symptoms escalate as the disease progresses and patients endure daily functional deficits in salivation, eating, and social contacts.¹⁰ Because psychosocial distress across the continuum of care negatively correlates with QoL^{12,13}, various

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psychosocial interventions have been implemented to manage anxiety and depression to ultimately improve patient well-being.¹⁴

Systematic distress screening using validated QoL and psychological assessment tools such as the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QLQ-C30)¹⁵, Functional Assessment of Cancer Therapy-Head and Neck Subscale (FACT-H&N)¹⁶, University of Washington Head and Neck Cancer Questionnaire¹⁷, Hospital Anxiety and Depression Scale (HADS)¹⁸, and Brief Symptom Inventory-18 (BSI-18)¹⁹ is essential in routine practice. While diverse psychosocial therapies, including cognitive behavioural therapy²⁰, problem-focused interventions²¹, coping techniques²², support groups²³, and psychoeducation²⁴, have shown variable outcomes in alleviating distress, non-pharmacological mind-body approaches, such as relaxation therapy remain underutilized in HNC care.

Relaxation therapy, including deep breathing exercises and progressive muscle relaxation (PMR),

elicits a relaxation response through predominant parasympathetic activity, resulting in reduced heart rate, lowered blood pressure, decreased breathing rate, and improved mood.^{25,26} Although relaxation training has shown variable yet positive outcomes in other oncology cohorts, such as reducing anxiety in prostate cancer²⁷, improving fatigue and coping mechanisms in breast cancer²⁸, and mitigating chemotherapy-related anxiety in systematic reviews²⁹ and broader cancer populations³⁰, its potential among HNC patients is yet to be fully capitalized upon.

Ultimately, while Dagli et al. successfully illustrate the growth of psycho-oncology literature, there remains a critical need to translate these bibliometric insights into active clinical interventions. Rigorous, prospective clinical studies evaluating the impact of targeted relaxation therapies on anxiety, depression, and QoL in HNC patients represent a necessary and promising avenue to optimize multidisciplinary cancer management outcomes.

REFERENCES

1. Dagli N, Dagli R, Kumar S, Haque M. Bibliometric analysis of literature on psychological stress and head and neck cancer (1977-2025). *Bangladesh J Med Sci.* 2026;25(1):14-27.
2. Ferlay J, Soerjomataram I, Dikshit R, et al. Cancer incidence and mortality worldwide: sources, methods and major patterns in GLOBOCAN 2012. *Int J Cancer.* 2015;136(5):E359-E386.
3. Gupta B, Johnson NW, Kumar N. Global epidemiology of head and neck cancers: a continuing challenge. *Oncology.* 2016;91(1):13-23.
4. Argiris A, Karamouzis MV, Raben D, Ferris RL. Head and neck cancer. *Lancet.* 2008;371(9625):1695-1709.
5. Bray F, Ferlay J, Soerjomataram I, Siegel RL, Torre LA, Jemal A. Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA Cancer J Clin.* 2018;68(6):394-424.
6. Strojan P, Hutcheson KA, Eisbruch A, et al. Treatment-induced toxicity in head and neck squamous cell carcinoma: management and prevention. *Oral Oncol.* 2017;70:82-91.
7. Pulte D, Brenner H. Changes in survival for patients with head and neck cancer in the early 21st century: a period analysis. *Oncologist.* 2010;15(9):994-1001.
8. Murphy BA, Ridner S, Wells N, et al. Quality of life in head and neck cancer: a review of the impact of treatment of patients and caregivers. *Subst Abuse Rehabil.* 2007;1:1-15.
9. Rosenthal DI, Lewin JS, Eisbruch A. Prevention and treatment of dysphagia and aspiration after chemoradiation for head and neck cancer. *J Clin Oncol.* 2006;24(17):2636-2643.
10. Rogers SN, Scott B, Lowe D, Ozakinci G, Humphris GM. Fear of recurrence and its relation to anxiety, depression and quality of life in head and neck cancer survivors. *Br J Oral Maxillofac Surg.* 2010;48(8):594-598.
11. Haisfield-Wolfe ME, McGuire DB, Soeken K, Geiger-Brown J, De Forge BR. Prevalence and correlates of symptoms in patients with head and neck cancer at diagnosis. *Oncol Nurs Forum.* 2009;36(4):E223-E235.
12. Neilson KA, Pollard AC, Boonzaier AM, et al. Psychological distress and quality of life in patients with head and neck cancer. *Oral Oncol.* 2010;46(3):184-190.
13. Llewellyn CD, McGurk M, Weinman J. Head and neck cancer: to what extent does physical morbidity affect psychological well-being? *Eur J Cancer B Oral Oncol.* 2005;41(1):3-10.
14. Luckett T, Britton B, Clover K, Rankin NM. Evidence for interventions to improve psychological outcomes in people with head and neck cancer: a systematic review. *Support Care Cancer.* 2011;19(7):871-881.
15. Aaronson NK, Ahmedzai S, Bergman B, et al. The European Organization for Research and Treatment of Cancer QLQ-C30: a quality-of-life instrument for use in international clinical trials in oncology. *J Natl Cancer Inst.* 1993;85(5):365-376.
16. List MA, D'Antonio LL, Cella DF, et al. The Performance Status Scale for Head and Neck Cancer Patients and the Functional Assessment of Cancer Therapy-Head and Neck

- Scale. *Cancer*. 1996;77(11):2294-2301.
17. Weymuller EA Jr, Alsarraf R, Yueh B, Deleyiannis FW, Coltrera MD. Analysis of the performance characteristics of the University of Washington Quality of Life measure in head and neck cancer patients. *Arch Otolaryngol Head Neck Surg*. 2001;127(10):1189-1193.
 18. Zigmond AS, Snaith RP. The Hospital Anxiety and Depression Scale. *Acta Psychiatr Scand*. 1983;67(6):361-370.
 19. Derogatis LR. Brief Symptom Inventory-18: Administration, Scoring, and Procedures Manual. Minneapolis, MN: NCS Pearson; 2001.
 20. Osborn RL, Demoncade AC, Feuerstein M. Psychosocial interventions for cancer survivors: a meta-analysis of randomized controlled trials. *Psychooncology*. 2006;15(10):835-850.
 21. Nezu AM, Nezu CM, Felgoise SH, McClure KS, Houts PS. Project Problem-Solving: impact of a psychoeducational intervention on cancer patients. *J Consult Clin Psychol*. 2003;71(6):1036-1048.
 22. Greer S, Moorey S, Baruch JD, et al. Adjuvant psychological therapy for patients with cancer: a prospective randomised trial. *BMJ*. 1992;304(6828):675-680.
 23. Helgeson VS, Cohen S, Schulz R, Yasko J. Group support interventions for women with breast cancer: who benefits from what? *Health Psychol*. 2000;19(2):107-114.
 24. Fawzy FI, Fawzy NW, Hyun CS, et al. Malignant melanoma. Effects of an early structured psychiatric intervention, coping, and affective state on recurrence and survival 6 years later. *Arch Gen Psychiatry*. 1993;50(9):681-689.
 25. Benson H. *The Relaxation Response*. New York, NY: William Morrow and Company; 1975.
 26. Jacobson E. *Progressive Relaxation*. Chicago, IL: University of Chicago Press; 1938.
 27. Isa MR, Moy FM, Razack AH, Zainuddin ZM, Zainal NZ. Impact of applied progressive deep muscle relaxation training on anxiety and depression among prostate cancer patients. *Asian Pac J Cancer Prev*. 2013;14(7):4237-4242.
 28. Zehra G, Elif S. The effect of progressive muscle relaxation exercises on quality of life and fatigue in patients with early stage breast cancer. *Eur J Oncol Nurs*. 2019;41:123-129.
 29. Kwekkeboom KL, Gretarsdottir E. Systematic review of relaxation interventions for chemotherapy-induced nausea and vomiting. *Oncol Nurs Forum*. 2006;33(1):113-120.
 30. Bravo L, Garcia-Torres F, Moreno-Diaz MJ. Impact of muscle relaxation techniques on quality of life in heterogeneous groups of cancer patients. *Support Care Cancer*. 2018;26(5):1489-1497.
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